

EXHIBIT G



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12/117,890	05/09/2008	Zong Liang Wu	E085 1030.1	9910

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WOMBLE CARLYLE SANDRIDGE & RICE, LLP
Entropic Communications
ATTN: IP DOCKETING
P.O BOX 7037
ATLANTA, GA 30357-0037

EXAMINER

WONG, BLANCHE

ART UNIT	PAPER NUMBER
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2476

NOTIFICATION DATE	DELIVERY MODE
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12/20/2011

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

IPDOCKETING@WCSR.COM

#1143

Office Action Summary

Application No.

12/117,890

Applicant(s)

WU ET AL.

Examiner

BLANCHE WONG

Art Unit

2476

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2011.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 9,22 and 30-56 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 9,22 and 30-56 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Application/Control Number: 12/117,890
Art Unit: 2476

Page 2

DETAILED ACTION

Claim Objections

1. **Claims 22,41,50,54** are objected to because of the following informalities:

Examiner notes that claims 22 and 50 are identical claims dependent from claim 48.

With regard to claim 41, Examiner suggests clarifying "a host" in line 6.

With regard to claim 54, Examiner suggests clarifying "a host" in line 6.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 40,41,53,54,56** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

With regard to claim 40, it is unclear what is the difference between the first checksum and the second checksum. For instance, claim 40 depends from claim 36. Claim 36 recites "the aggregate packet comprises an aggregation header". Deductively, the first checksum for the aggregation header is the aggregation header of the aggregate packet recited in claim 36. Yet, the second checksum is "that ... received in the aggregation header of the aggregate packet" too. It seems that the first and second checksums are two of the same. Similarly in claim 53.

Application/Control Number: 12/117,890
Art Unit: 2476

Page 3

With regard to claim 41, it is unclear what is meant by “to be correct” in “if the second checksum is found to be correct” in line 7.

With regard to claim 54, it is unclear what is meant by “to be correct” in “if the second checksum is found to be correct” in line 7.

With regard to claim 56, it is unclear whether packets having the same destination node have the same aggregation identifier. It is also unclear why packet data units received at the packet aggregation module would have an aggregation identifier.

4. There is insufficient antecedent basis for this limitation in the claim.

Claim 40, line 2, “the media access control header”.

Claim 41, line 6, “the at least two of the plurality of packet data units”.

Claim 54, line 6, “the at least two of the plurality of packet data units”.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Application/Control Number: 12/117,890

Page 4

Art Unit: 2476

6. **Claims 9,22,30-33,35-39,42-45,47-52,55** are rejected under 35 U.S.C. 102(e) as being anticipated by Rajan et al. (U.S. Pat No. 7,170,893).

With regard to claims 30 and 42, Rajan discloses a method of transmitting digital data over a network comprising:

receiving **(receiver 530 of router 500 in Fig. 5)** a plurality of packet data units **(IPv4 packets, col. 2, line 14; See Fig. 1);**

identifying at least two of the plurality of packet data units that have a same aggregation identifier **(Identification field of packet)(Field 25 is a 16-bit Identification field that indicates the identity of packet 1, making it possible to gather IP datagrams with the same identifier and reassemble them", col. 2, lines 35-38) (See also "the node concatenates n received packets that have a common traffic characteristic requiring a delay of less than r milliseconds to form a concatenated packet for transmission to another node....", col. 3, lines 39-42);**

forming an aggregate packet **(concatenated packet)** from the at least two of the plurality of packet data units **(concatenates n received packets);** and

transmitting the aggregate packet **(concatenated packet) (See also "Fig. 3 ... a detailed layout of concatenated packet 1"', col. 3, lines 20-21)** to at least one destination node **(another node/next node) (See also "destination address in field 31' is the address of the next node", col. 3, line 26).**

Application/Control Number: 12/117,890
Art Unit: 2476

Page 5

With regard to claims 31 and 43, Rajan further discloses the aggregation identifier (**common header 2 of concatenated packet in Fig. 3**) comprises a destination address (**destination address 31' of concatenated packet in Fig. 3**).

With regard to claims 32 and 44, Rajan further discloses the aggregation identifier comprises a packet priority ("**two traffic characteristics, low delay and normal delay**", col. 3, line 37).

With regard to claims 33 and 45, Rajan further discloses the packet data units are Ethernet packets ("**The invention could be applied to packets transmitted under other protocols such as Ethernet**", col. 5, lines 29-30).

With regard to claims 35 and 47, Rajan further discloses an aggregate control field that indicates to the at least one destination node (**another node/next node**) (**See also "destination address in field 31' is the address of the next node"**, col. 3, line 26) that aggregation control is supported.

With regard to claims 36 and 48, Rajan further discloses the aggregate packet comprises an aggregation header (**common header 2 of concatenated packet in Fig. 3**; "**Refer now to Fig. 3 ... Fields 21'-31' are fields of standard IPv4 header 2**", col. 3, lines 23-24) that comprises a number of packet data units in the aggregate packet ("**Field 26 is a 16-bit Fragmentation field that contains information necessary to**

Application/Control Number: 12/117,890

Page 6

Art Unit: 2476

place a number of IP datagrams with the same identifier in the correct order”, col. 2, lines 38-41) (Therefore, Field 26 can tell the number of packets).

With regard to claims 37 and 49, Rajan further discloses the aggregation header further comprises a length of each of the packet data units in the aggregate packet (**“ P_i is the size of the payload of the i th of the n received packets”, col. 3, lines 61-62).**

With regard to claims 9 and 22, Rajan further discloses the aggregation header (common header 2 of concatenated packet in Fig. 3; **“Refer now to Fig. 3 ... Fields 21'-31' are fields of standard IPv4 header 2”**, col. 3, lines 23-24) further comprises a packet sequence number (**“Field 26 is a 16-bit Fragmentation field that contains information necessary to place a number of IP datagrams with the same identifier in the correct order”, col. 2, lines 38-41).**

With regard to claim 50, Rajan further discloses the aggregation header (common header 2 of concatenated packet in Fig. 3; **“Refer now to Fig. 3 ... Fields 21'-31' are fields of standard IPv4 header 2”**, col. 3, lines 23-24) further comprises a packet sequence number (**“Field 26 is a 16-bit Fragmentation field that contains information necessary to place a number of IP datagrams with the same identifier in the correct order”, col. 2, lines 38-41).**

Application/Control Number: 12/117,890
Art Unit: 2476

Page 7

With regard to claims 38 and 51, Rajan further discloses the network comprises a network coordinator node **(the originating node)** and at least one client node **(another node/next node)** **(See also "destination address in field 31' is the address of the next node", col. 3, line 26).**

With regard to claims 39 and 52, Rajan further discloses the transmitting comprises requesting a transmission time slot from the network coordinator node **(DS1, col. 4, line 8)(A DS1 circuit is made up of twenty-four 8-bit channels a.k.a. timeslots or DS0's).**

With regard to claim 55, Rajan discloses
transceiver **(router)** adapted to receive **(receiver 530 of router 500 in Fig. 5)** a plurality of packet data units **(IPv4 packets, col. 2, line 14; See Fig. 1);**

a packet aggregation module (routing device 540, classifier 551,552, concatenated packet preparer 571,572, etc. of router 500 in Fig. 5) for identifying at least two of the plurality of packet data units that have a same aggregation identifier **(Identification field of packet)(Field 25 is a 16-bit Identification field that indicates the identity of packet 1, making it possible to gather IP datagrams with the same identifier and reassemble them", col. 2, lines 35-38) (See also "the node concatenates n received packets that have a common traffic characteristic requiring a delay of less than r milliseconds to form a concatenated packet for transmission to another node....", col. 3, lines 39-42)** and for forming an aggregate

Application/Control Number: 12/117,890

Page 8

Art Unit: 2476

packet (**concatenated packet**) from the at least two of the plurality of packet data units (**concatenates n received packets**);

wherein the transceiver (**router**) is adapted to transmit the aggregate packet (**concatenated packet**) (See also “Fig. 3 ... a detailed layout of concatenated packet 1’”, col. 3, lines 20-21) to at least one destination node (**another node/next node**) (See also “destination address in field 31’ is the address of the next node”, col. 3, line 26).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 34 and 46** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajan.

With regard to claims 34 and 46, Rajan discloses the method of claim 30 and the non-transitory computer readable media of claim 42, respectively.

Rajan fails to explicitly show a MoCA packet.

Rajan discloses “The invention could be applied to packets transmitted under other protocols such as Ethernet”, col. 5, lines 29-30. MoCA are basically Ethernet

Application/Control Number: 12/117,890

Page 9

Art Unit: 2476

packets being transmitted over coaxial cable. It would be well-known in the art that MoCA packets can be used in place of Ethernet packets.

At the time of the invention, it would have been obvious to replace Ethernet packets as taught in Rajan, with MoCA packets, to provide for a scalable network and thus another means to transmit Ethernet packets.

9. **Claims 40 and 53** are rejected under 35 U.S.C. 103(a) as being unpatentable over Rajan in view of Hiddink et al. (US 2005/0157715).

With regard to claims 40 and 53, Rajan discloses the method of claim 36 and the non-transitory computer readable media of claim 48, respectively. Rajan further discloses a checksum bit (**common header 2 of concatenated packet in Fig. 3**; **“Refer now to Fig. 3 ... Fields 21’-31’ are fields of standard IPv4 header 2”**, col. 3, lines 23-24; **“Field 29 is a 16-bit Checksum field that is used to check for transmitter errors in the header”**, col. 2, lines 46-47).

Hiddink disclose a checksum bit and further discloses calculating and comparing using the checksum (**“When a receiver examines a packet having frame format 500, the checksum for the packet is computed and compared to FCS 505. If the computed packet checksum and FCS match, the packet contrains no errors and may be processed. If the computed packet checksum and FCS 505 do not match, the packet contains at least one error.”**, col. 4, lines 30-36).

Application/Control Number: 12/117,890
Art Unit: 2476

Page 10

At the time of the invention, it would have been obvious for one skilled in the art to combine the method as taught by Rajan, with calculating and comparing using the checksum as taught by Hiddink, in order to check for transmission errors.

Allowable Subject Matter

10. Claims 41,54,56 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLANCHE WONG whose telephone number is (571)272-3177. The examiner can normally be reached on Monday through Friday, 830am to 530pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Blanche Wong/
Examiner, Art Unit 2476
December 9, 2011

/Ayaz R. Sheikh/
Supervisory Patent Examiner, Art
Unit 2476